IN THE CLAIMS:

On substitute page 17, line 1, cancel "Patent Claims" and substitute –I CLAIM AS MY INVENTION:-- therefor.

Claims 1-6 on Substitute Pages 17 and 18 have been cancelled.

1-6. (Cancelled)

Add the following new claims:

7. (New) A method for generating a homogenous magnetization in a spatial examination volume of a magnetic resonance system during examination of a subject located in the examination volume, said magnetic resonance system comprising a body coil comprising a plurality of resonator segments that are electromagnetically decoupled from each other, and a control and evaluation device connected to said plurality of resonator segments, said method comprising the steps of:

storing predetermined, segment-specific excitation parameters for the respective resonator segments in said control and evaluation device;

with said control and evaluation device, separately activating said plurality of resonator segments corresponding to said excitation parameters in a temporal sequence within an excitation sequence using different sets of said excitation parameters with phase distributions of the nuclear magnetization distributions in the examination volume, said nuclear magnetization distributions constructively overlapping to form a resulting homogenous total nuclear magnetization distribution in said examination volume by changing said different parameter sets and using a number of said different parameter sets to cause local power losses, introduced into the examination volume as a consequence of activation of the respective segments with said parameter sets, to be locally differently situated in the patient, with said local power

losses not coinciding and not mutually reinforcing during said excitation sequence.

8. (New) A method as claimed in claim 7 wherein the step of storing said plurality of sets of predetermined, segment-specific excitation parameters comprises generating said sets of excitation parameters dependent on a homogeneity of a magnetic field produced by the parameter set, and comprising selecting the parameter sets used in said excitation sequence dependent on said homogeneity.

9. (New) A method as claimed in claim 7 wherein said examination volume comprises a plurality of sub-volumes, and comprising, for each sub-volume, using a plurality of different excitation parameter sets for sequential activation of said resonator segments.

10. (New) A method as claimed in claim 9 comprising selecting said excitation parameter sets to cause foot angle amplitudes in the respective sub-region to be optimally large, and having respective flip angle phase distributions in said examination volume allowing for said constructive overlapping.

11. (New) A method as claimed in claim 10 comprising determining at least one of an amplitude of an excitation parameter set and an excitation duration used with an excitation parameter set, and a phase shift of an excitation parameter set, to produce a substantially homogenous foot angle amplitude distribution in said examination volume.

12. (New) A method as claimed in claim 9 comprising selecting said excitation parameter sets to cause foot angle amplitudes in the respective sub-region to be homogenous, and having respective flip angle phase distributions in said examination volume allowing for said constructive overlapping.

13. (New) A method as claimed in claim 12 comprising determining at least one of an amplitude of an excitation parameter set and an excitation